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EXPANSE NETWORKS, INC.
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EXAMINER

FISH, JAMIESON W

ART UNIT PAPER NUMBER

2616

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/824,434

Applicant(s)

ELDERING ET AL.

Examiner

Jamieson W. Fish

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 April 0200 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/01/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Information Disclosure Statement

1. The six information disclosure statements (IDS) have been placed in the application file, and the information referred to therein has been considered as to the merits.

Claim Objections

2. Claim 9 is objected to because of the following informalities: The “plurality of ad channels” is not disclosed in claim 1. It is suggested the claim read “The method of claim 1, wherein the grouped advertisements are a plurality of ad channels comprised within a single 6 MHz digital channel.” Appropriate correction is required.

3. Claim 11 is objected to because of the following informalities: line 2 “used” should be omitted. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 8, 9, 18-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Hendricks et al. (US #6,463,585).

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6. Regarding claim 1, Hendricks teaches in a television network environment, the television network environment being a switched digital video system (See Col. 9 lines 47-58), a cable-based system (See Col. 9 lines 22-47), and satellite-based system (See Column 9, lines 59-64), a method for delivering targeted advertisements to one or more subscribers, the method comprising: selecting one or more targeted advertisements to be transmitted to one or more subscribers (See Col. 70 lines 63-67); grouping one or more selected advertisements in a group (See Col. 70 lines 63-67); and transmitting the grouped advertisements to the subscriber equipment (See Col. 70, lines 63-67).

7. Regarding claim 8, Hendricks teaches a method for delivering targeted advertisements by using feeder channels that only contain advertisements (See Col. 4, lines 25-42). Hendricks teaches that program signals (conventional programming) are digitally compressed (encoded) and transmitted to television terminals (See Col. 3 lines 40-47). Hendricks teaches that a program signal could be a group of targeted advertisements (See Col. 16 lines 9-12) and that these advertisements could be packaged in a manner similar to a television programs (See Col. 12 lines 6-9). It is understood that Hendricks teaches encoding and transmitting grouped advertisements as conventional programming.

8. Regarding claim 9, Hendricks teaches that the method of delivering targeted advertisements to one or more subscribers further comprises the plurality of ad channels are comprised within a single 6 MHz digital channel (See Col. 73, lines 13-35).

9. Regarding claim 18, Hendricks teaches a television network environment, the television network environment being a switched digital video system (See Col. 9 lines

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47-58), cable-based system (See Col. 9 lines 22-47), and a satellite-based system (See Column 9, lines 59-64), advertisement management system comprising: an advertisement channel generator for receiving one or more advertisements and their corresponding group information and generating an advertisement channel comprising the advertisements (See Fig. 4a Multiple channel architect module and Col. 31 lines 41-53, Col. 35 lines 65-67, Col. 36 lines 1-60) the associated group information (See Col 72 lines 12-18); and set-top box for receiving the advertisement channel and the corresponding advertisements (See Fig. 1, Set Top Terminal 220, and Col. 15 lines 14-17 and Col. 72 lines 64-67).

10. Regarding claim 19, Hendricks teaches, an advertisement management system further comprising a set-top box having a memory for storing the selected advertisements (See Col. 16 lines 9-12 and Col. 74 lines 4-11).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 2-3, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks et al.

13. Regarding claim 2, Hendricks teaches a method for delivering targeted advertisements to one or more subscribers where the advertisements are grouped on to

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a feeder channel (See Col. 4, lines 25-42). Hendricks does not teach that the feeder channel is a time-division multiplexed channel. However, Hendricks does teach employing various multiplexing schemes, including TDM channels, for transmission of program signals (See Col. 54 lines 40-67). Hendricks teaches that a program signal could be targeted advertisements (See Col. 16 lines 9-12). It would have been obvious to one of ordinary skill in the art to make Hendricks' feeder channel a TDM channel. The motivation for this being that TDM channels provide subscribers with continuous access to multiple segments of video program thus making them desirable for video transmission.

14. Regarding claim **3**, Hendricks does not teach that the TDM channel is a high-speed channel. However, Hendricks' does teach high-speed digitally multiplexed data (See Col. 22 lines 32-35). It would have been obvious to one of ordinary skill in the art to make a TDM channel a high-speed channel. One would have been motivated to make a TDM channel a high-speed channel to increase the amount of data that could be processed in a given time.

15. Regarding claim **22**, Hendricks teaches a method for delivering targeted advertisements to one or more subscribers by grouping advertisements into different feeder channels (See Col. 4, lines 25-42). Hendricks does not teach that any of the advertisement channels are a TDM channel. However, Hendricks does teach employing various multiplexing schemes, including TDM channels, for transmission of program signals (See Col. 54 lines 40-67). Hendricks teaches that a program signal could be targeted advertisements (See Col. 16 lines 9-12). It would have been obvious

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to one of ordinary skill in the art to make Hendricks' feeder channel a TDM channel.

The motivation for this being that TDM channels provide subscribers with continuous access to multiple segments of video program, thus making them desirable for video transmission.

16. Claims 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks et al. as applied to claim 2 above, and in further view of Persson et al. (U.S. #6,144,653).

17. Regarding claim 4, Hendricks does not teach that the TDM channel is an analog channel. However, analog TDM channels are well known in the art as disclosed by Persson (See Col. 8 lines 6-8). It would have been obvious to one skilled in the art to make a TDM channel that was an analog channel. One would have been motivated to make the TDM channel an analog channel, because having a TDM channel that is an analog channel allows the TDM channel to be transmitted over an analog cable network.

18. Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks et al. as applied to claim 2 above, and further in view of Blahut (U.S. #6,796,555).

19. Regarding claim 5, the claim differs from Hendricks in that the claim further requires that the TDM channel is an ATM-based channel. A TDM channel that is grouped in an ATM-based channel is well known in the art as disclosed in Blahut (Col. 3 lines 47-50). It would have been obvious to one of ordinary skill in the art to modify Hendricks by have the TDM channel grouped in an ATM-based channel. The

motivation for having the TDM channel grouped in an ATM channel is that this would allow the TDM channel to be transmitted efficiently over multiple types of carrier networks.

20. Regarding claim 6, claim 6 requires that the ATM-based channel be a 6 MHz digital channel. Blahut teaches a 6 MHz digital ATM-based channel (See Col. 6 lines 25-35). It would have been obvious to one of ordinary skill in the art to have a 6 MHz digital ATM based channel. The motivation for this would be that a 6 MHz channel is standard for video signals and thus making the ATM channel a 6 MHz channel would make it compatible with current cable receivers.

21. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks et al in view of Blahut as applied to claim 6 above, and further in view of De Haas (US #2002/0152471).

22. Regarding claim 7, claim 7 requires that the 6 MHz digital ATM-based channel be a VPI/VCI. An ATM-based channel that is a VPI/VCI is well known in the art as disclosed in De Haas (See Paragraph 10). It would have been obvious to one skilled in the art to make the ATM-based channel a VPI/VCI. It is advantageous to have an ATM channel with a VPI/VCI, because a VPI/VCI allows the channel and path for a specific cell of the ATM channel to be identified.

23. Claims 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks in view of Krause et al. (U.S. #5,926,205).

24. Regarding claims 10, Hendricks teaches assigning each set-top box (STB) to one or more groups (See Col. 27, lines 1-5). Hendricks teaches assigning each

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advertisement a unique name and individual advertisement information (See Col. 36 Table H), using this information to assign each ad to a particular feeder channel (See Col. 36 lines 1-60 and Col. 4 lines 48-59) and transmitting feeder channels to STBs (See Col. 72 lines 64-67). Hendricks does not teach a feeder channel that is a TDM channel, forming a timing table illustrating the timing of various advertisement groups, or transmitting the timing table to one or more STBs. However, Hendricks does teach employing various multiplexing schemes, including TDM channels, for transmission of program signals (See Col. 54 lines 40-67). Hendricks teaches that a program signal could be targeted advertisements (See Col. 16 lines 9-12). It would have been obvious to one of ordinary skill in the art to make Hendricks' feeder channel a TDM channel. The motivation for this being that the properties of a TDM channel makes it very desirable for video transmission. Transmitting information, such as video segment identifiers, that illustrates the timing of video data on a TDM channel (i.e. its location on a sequence) and transmitting this information to an STB is well known in the art as taught by Krause (See Col. 12 lines 24-39). Krause also teaches having an STB that uses video segment identifiers to access a particular video segment from a TDM channel (See Col. 12 lines 24-39). Representing information in the form of a table is also well known in the art as taught by Hendricks (See Col. 36 Table H). Therefore, it would have been obvious for one of ordinary skill in the art to combine the teachings of Krause and Hendricks to form a timing table associated with the TDM channel, the timing table illustrating the timing of various advertisement groups; and transmitting the timing table to one or more STBs. One would have been motivated to transmit

information illustrating the timing of the various advertisements groups to the STBs, so that the STB could identify each group and use this information to access, display, or reconstruct the appropriate group. One would have been motivated to put such information in the form of a table, because a table is a convenient way to represent data.

25. Regarding claim 11, claim 11 requires the STB to use the timing table to select appropriate advertisements from the TDM channel. Krause teaches having a STB use video segment identifiers to access elements of a particular video segment (See Col. 12 lines 24-30). It would have been obvious to one of ordinary skill in the art to further modify Hendricks to have the STB use the timing table to select the appropriate advertisements from the TDM channel. The motivation for further modifications would have been the ability for the STB to display particular advertisements at a particular time.

26. Regarding claim 12, claim 12 requires the TDM channel to have one or more time slots, each slot hosting a group of advertisements. It is well known in the art to have a TDM channel with one or more timeslots, where each time slot hosts a video segment as is disclosed in Krause (See Col. 6 lines 59-67). It would have been obvious to one of ordinary skill in the art to further modify Hendricks' with Krause to have a TDM channel with time slots that host a group of advertisements. One would have been motivated to make such a modification, because time slots or segments of TDM provide subscribers with continuous access to multiple segments of video program.

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27. Regarding claim **13**, claim 13 requires the STB decodes the received TDM channel and identifies the timing of the advertisement to be downloaded. Hendricks teaches a method of storing ads to memory i.e. downloading them (See Col. 74 lines 4-10). Hendricks does not teach that the STB decodes the received TDM channel and identifies the timing of the advertisement to be downloaded. Having a STB decode a compressed data stream, such as a TDM channel, is well known in the art as taught by Krause (See Col. 8 lines 48-53). Having a STB identify the timing of advertisements to be accessed is also well known in the art as taught by Krause (See Col. 12 lines 24-34). Therefore, it would have been obvious to one of ordinary skill in the art to further modify Hendricks with Krause to have a STB for decoding a received TDM channel and identify the timing of advertisements to be downloaded. The motivation for such a modification would have been having an STB utilizing a TDM channel structure that stores specific video data for future display.

28. Regarding claim **14**, claim 14 requires the STB to identify which advertisements to store, and to save the identified advertisements during one or more corresponding splice window. Hendricks teaches having a STB store targeted advertisements (See Col. 74 lines 4-10). Hendricks does not teach saving the identified advertisements during one or more corresponding splice windows. However, having a STB access particular video segments during a corresponding sequence, or splice window, is well known in the art as taught by Krause (See Col. 12 lines 24-34). It would have been obvious to one skilled in the art to further modify Hendricks with Krause to have a STB to identify which advertisements to store, and to save the identified advertisements

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during one or more corresponding splice windows. The motivation for such a modification would have been utilizing the properties of a TDM channel for the storage of video data.

29. Claim **15-17, 20-21** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks et al. view of De Haas (US #2002/0152471).

30. Regarding claim **15**, Hendricks teaches assigning each advertisements a unique name and individual advertisement information, creating a table correlating each ad to a group of STBS (See Col. 36 Table H) and using this information to assign each ad to a particular feeder channel (See Col. 36 lines 1-60) and transmitting these feeder channels to one or more subscribers (See Col. 70 lines 63-64). Hendricks does not teach assigning each advertisement group a unique VPI/VCI, thereby creating a GROUP-VPI/VCI table. De Haas teaches a method for transferring video data in a VPI/VCI channel (See Paragraph 10). De Hass also teaches creating a table that relates STBs to VPI/VCI channels and using this table to transmit video data to the STBs (See Paragraph 24). It would have been obvious to one skilled in the art to combine Hendricks' teachings (assigning unique names to ads, assigning adds to feeder channels, creating a table which relates ads to STBS and transmitting feeder channels to STB) and De Hass' teachings (transmitting video data in a VPI/VCI, and creating a table relating STBs to VPI/VCI channels) to assign each advertisement group a unique VPI/VCI, thereby creating a GROUP-VPI/VCI table and transmitting each group of advertisements on selected VPI/VCI channel to one or more subscribers. The motivation for assigning each group of advertisements a unique VPI/VCI is that this

allows the channel and path for specific video data to be identified. The motivation for putting all the identification information into table form is that having a table would be a convenient way to relate advertisements to VCI/VPI channels.

31. Regarding claim **16**, claim 16 requires that the STB receive one of more advertisements for the corresponding STB. Hendricks teaches an STB receiving one or more advertisements for the corresponding STB (See Col. 72, lines 64-67).

32. Regarding claim **17**, claim 17 requires that the GROUP-VPI/VCI table comprises the identity of the STBs, the identity of the advertisement group, and the identity of the VPI/VCI channel. Hendricks teaches a table comprising STB identities (See Col. 32 Table E). De Haas teaches a table that comprises information about what video data is on a channel and which channels are transmitted to each STB. (See paragraph 24). It would have been obvious to one of ordinary skill in the art to modify Hendricks to have table that comprised the identity of the STBs, the identity of the advertisement group, and the identity of the VPI/VCI channel. The motivation for such a modification would have been such a table would have been a convenient way to represent such information.

33. Regarding claim **20**, claim 20 requires that the advertisement channel is a VPI/VCI channel. De Haas teaches a method for transferring video data in a VPI/VCI channel (See Paragraph 10). It would have been obvious to one of ordinary skill in the art to combine the teachings of Hendricks with De Haas to create an advertisement channel that is a VPI/VCI channel. Having a VPI/VCI channel is beneficial, because it allows the channel and path for a specific video data to be identified.

34. Regarding claim **21**, claim 21 requires that the STB receive one or more advertisements corresponding to the assigned VPI/VCI channel. Hendricks teaches an STB receiving one or more advertisements corresponding to an assigned channel (See Col. 72, lines 64-67). It would have been obvious to one of ordinary skill in the art to have an STB receive one or more advertisements corresponding to the assigned VPI/VCI channel. A VPI/VCI channel delivery advertisements is beneficial, because a VPI/VCI channel would allow the channel and path for the advertisements to be identified.

35. Claims **23-24** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks as applied to claim **22** above, and further in view of Krause et al.

36. Regarding claim **23**, claim 23 requires that the TDM channel comprise timing information corresponding to each advertisement group. It is well known in the art to have a TDM channel that comprises timing information corresponding to video segments as shown in Krause (See Col. 13, lines 24-26, segment identifiers). It would have been obvious to one of ordinary skill in the art to modify a TDM channel so that it comprised the timing information of channel. A motivation for such a modification is that it would allow for timing information to be transmitted with the video data and this timing information could be used to have the receiver selectively access video data on the TDM channel.

37. Regarding claim **24**, claim 24 requires that the STB retrieve one or more advertisements by identifying the corresponding timing information. Having a STB identify the timing of advertisements to be accessed is also well known in the art as

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taught by Krause (See Col. 12 lines 24-34). It would have been obvious to one of ordinary skill in the art to have a STB retrieve one or more advertisements by identifying corresponding timing information. The motivation for this is that each STB need only to retrieve information during a specific time.

Conclusion

38. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jamieson W. Fish whose telephone number is 703-305-0884. The examiner can normally be reached Monday thru Friday, 8:00 a.m.- 5:30 p.m.

39. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile can be reached on 703-305-4380. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

40. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JF

Nov. 9, 04


NGOC YEN VU
PRIMARY EXAMINER